

310 18-05-08



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

U/R

D204-635-041
Job Sheet 176668



Part No: D204-635-041

Job Qty: 1 ea

Part Name: Replacement Skidtube with Standard Wearplates Fits LH or RH



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/27/18

Job Tracking No:

Due Date: 5/18/18

Created By: Michelle Gagnon-Donovan

Type: SOLD

Description:

Note: URF 17-569 DWG REV F SHEETS 1,2,3,6 IPP Rev:F 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ IPP Rev:G 07-07-09 Added SS Wearplates & Gaskets JLM IPP RevH: add identify and stock seq DD 10.01.28 verf:EC IPP Rev:I 10.12.01 as per DEO DD verf:EC IPP REV:J 12.01.23 AS PER ECN11-684 DD VERF:EC

Ship Via:

Bill of Materials

DART
AEROSPACE

Container No: S069970



Part: D204-635-041

Job No: 176668

Serial No/Batch: S069970

Revision:

Inspector:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 813 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 05/09/18

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		5/18/18	0.00	0.00	Start Up Skidtubes-1		J.S
110	Skidtubes	1 pcs		5/18/18	0.00	1.00	Skidtubes-1		J.S
113	QC	1 pcs		5/18/18	0.00	0.00	QC7-1		BE
116	Skidtubes	1 pcs		5/18/18	0.00	1.00	Skidtubes-1		J.S
118	QC	1 pcs		5/18/18	0.00	0.00	QC5		BE
120	CNC Bend Skidtubes	1 pcs		5/18/18	0.00	1.12	CNC Bend Skidtube		M.A.G.
130	Skidtubes	1 pcs		5/18/18	0.00	1.00	Skidtubes-1		M.A.G.
140	QC	1 pcs		5/18/18	0.00	0.00	QC6		10-16-05-18
150	Skidtubes	1 pcs		5/18/18	0.00	1.00	Skidtubes-1		10-16-05-18
160	QC	1 pcs		5/18/18	0.00	0.00	QC10		38
170	QC	1 pcs		5/18/18	0.00	0.00	QC6		9-89 38
175	HandFinish	1 pcs		5/18/18	0.00	0.10	HandFinish2		SA 18-05-23
180	Powdercoat	1 pcs		5/18/18	0.00	0.46	Powdercoat1		DK 18-5-24
180	QC	1 pcs		5/18/18	0.00	0.00	QC3		10 18-5-24
200	HandFinish	1 pcs		5/18/18	0.00	1.67	HandFinish4		10-16-05-18
210	QC	1 pcs		5/18/18	0.00	0.00	QC5		38
213	DC	1 pcs		5/18/18	0.00	0.00	DC		9-89 38
215	Packaging	1 pcs		5/18/18	0.00	0.00	Packaging3-1		21
220	QC21-FG	1 Ea		5/18/18	0.00	0.00	QC21		9-89

Part Op 110 - 1- Inspect mat'l D2500-1-190 for damage 2-Cut D2500-1-190 per Dwg D2590 .Deburr ends 3-Drill pilot holes using Descriptions: drill jig DT 8149 & DT8711-1&2 and open to finish size as per dwg 4-Deburr holes as per QSI002 section 4.2.3 and blow out all chips from inside of tube. Test fit DT9916 on fwd and aft saddles. 5-Acid etch and Alodine tube per QSI 005 4.1

113 - QC7-Inspect Chemical Conversion Coat

116 - 1-Bond web in place per QSI 015. Allow 12 Hrs. cure time before cutting Pick: Qty Part Number Description Batch A/R Sikaflex-291 138707 Sikaflex expire date: 10-12-20 Start Time: _____ Fin Time: _____

118 - QC5- Inspect part completeness to step on W/O

120 - Bend as per program D2590.C on CNC Bender

130 - 1-Cut tubes as per Dwg. D2590 . 2-Deburr ends after cutting.

140 - QC6- All purchased or subcontracted products

150 - 1-Prepare tube for welding D2576.3 Step Remove alodine as required. 2-Weld step D2576 as per Dwg. D2590 and QSI 004 A/R Aluminum Rod 138829 3-Grind weld flush on step 4-Insert D4202-1 spacer, swage as per QSI002 and trim/ grind flush per QSI002 and as per dwg 5-Drill holes for wearplates using DT 8218 & DT8937 Open holes to 19/64", adjust stopper not to hit web.Deburr 6-Drill pilot holes for aft cap using DT 8215 Open holes to #6 Drill bit. Deburr 7-Drill pilot holes for Tow ring using DT9425, open to .640"and Deburr ****verified dim. before drilling****

160 - QC10- Inspect visual per QSI004- ground welds

170 - QC6- All purchased or subcontracted products

175 - Pressure Wash per QSI005 4.3 Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

180 - White Gloss(Ref.4.3.5.1) per QSI005 4.3-Alum START TIME: 8:10 OVEN TEMPERATURE: 320°

FINISH TIME: 8:40

190 - QC3- Inspect Part Finish

200 - 1-Install inserts & wearplates & gaskets using a drop of Sikaflex on insert holes before installing wearplates A/R Sikaflex-291 _____ Sikaflex expire date: _____ 2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580 3-Inspect for foreign object per QSI 024 4-Install 2855 Aft Cap as per Dwg D2590 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive A/R Sikaflex-291 113829 Sikaflex expire date: 10-12-20

212 5-Wing Walk as per Dwg D2590 and QSI 005 4.4 Batch: 113829

210 - QC5- Inspect part completeness to step on W/O

213 - Document Control Photocopy bluefile & type labels per PPP D204-635-041 CHG 005

215 - Identify as per dwg & Stock Location: _____

220 - QC21- Final Inspection - Work Order Release

003397

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2500-1-190	Ext'n -1' Beam Tube 4"	1 Ea (1 ea)	90-Start up Operation	5027162
D2597	204 Web	1 Ea (1 ea)	90-Start up Operation	5069752
D2576-3	Step (Machining Detail)	1 Ea (1 ea)	150-Skiddtubes	5069752
D4202-1	Spacer	17 Ea (17 ea)	150-Skiddtubes	5054571
ALS7-1032-130	Rivnut	44 Ea (44 ea)	200-HandFinish	5045668
AN3-5A	Bolt	2 Ea (2 ea)	200-HandFinish	5041106-1
AN3C4A	Bolt	44 Ea (44 ea)	200-HandFinish	5041114
D2594-1	Plug	10 Ea (10 ea)	200-HandFinish	5059021
D2594-3	O-Ring	10 Ea (10 ea)	200-HandFinish	5049975
D2855	Cap	1 Ea (1 ea)	200-HandFinish	5147805
D3564-11	Wearplate Aft	1 Ea (1 ea)	200-HandFinish	5054594
D3564-13	Wearpad Fwd	1 Ea (1 ea)	200-HandFinish	5054456
D3564-7	Wearplate Center	1 Ea (1 ea)	200-HandFinish	5054596
D3564-9	Wearplate Fwd	1 Ea (1 ea)	200-HandFinish	5045452
D3566-1	Gasket Aft / Fwd	2 Ea (2 ea)	200-HandFinish	NA 18-5-2
D3566-13	Gasket Fwd	1 Ea (1 ea)	200-HandFinish	
D3566-7	Gasket Center	1 Ea (1 ea)	200-HandFinish	
NAS1149C0332R	Washer	44 Ea (44 ea)	200-HandFinish	5044236
NAS1149D0332J	Washer	2 Ea (2 ea)	200-HandFinish	5020606-1

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D2500-1-190	1	58	0
	D2597	1	0	0
150-Skiddtubes	D2576-3	1	5	0
	D4202-1	17	648	0
200-HandFinish	ALS7-1032-130	44	2,541	0
	AN3-5A	2	371	0
	AN3C4A	44	2,121	0
	D2594-1	10	640	0
	D2594-3	10	909	0
	D2855	1	106	0
	D3564-11	1	26	0
	D3564-13	1	23	0
	D3564-7	1	5	0
	D3564-9	1	26	0
	D3566-1	2	25	0
	D3566-13	1	17	0
	D3566-7	1	25	0
	NAS1149C0332R	44	6,133	0
	NAS1149D0332J	2	2,465	0

Part Specifications

Specifications could not be found.

Plex 4/27/18 8:47 AM Dart.Gagnon.Michelle

LIST OF MATERIALS				
ITEM	QTY -041	QTY -043	PART NUMBER	DESCRIPTION
1	X		D2590-041	SKIDTUBE ASSEMBLY
2		X	D2590-043	SKIDTUBE ASSEMBLY
3	1	1	D2500-1-190	EXTRUSION
4		16	D2570	BUSHING
5	1	1	D2576-3	STEP
6	10	4	D2594-1	PLUG
7	10	4	D2594-3	O-RING
8	1	1	D2597	204 WEB
9	1	1	D2855	AFT CAP
10	1		D3564-7	WEARSHOE
11	1		D3564-9	WEARSHOE
12	1		D3564-11	WEARSHOE
13	1		D3564-13	WEARSHOE
14	2		D3566-1	GASKET
15	1		D3566-7	GASKET
16	1		D3566-13	GASKET
17	17	22	D4202-1	SPACER
18		1	D4408-041	WEARPLATE ASSEMBLY
19		1	D4408-043	WEARPLATE ASSEMBLY
20	44		ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
21	44		AN3C4A	BOLT
22	2	2	AN3-5A	BOLT
23		8	AN4-45A	BOLT
24	44		NAS1149C0332R	WASHER (AN960C10L)
25	2	2	NAS1149D0332J	WASHER (AN960JD10L)
26		8	MS21042-4	NUT (OR MS21042L4)

GENERAL NOTES:

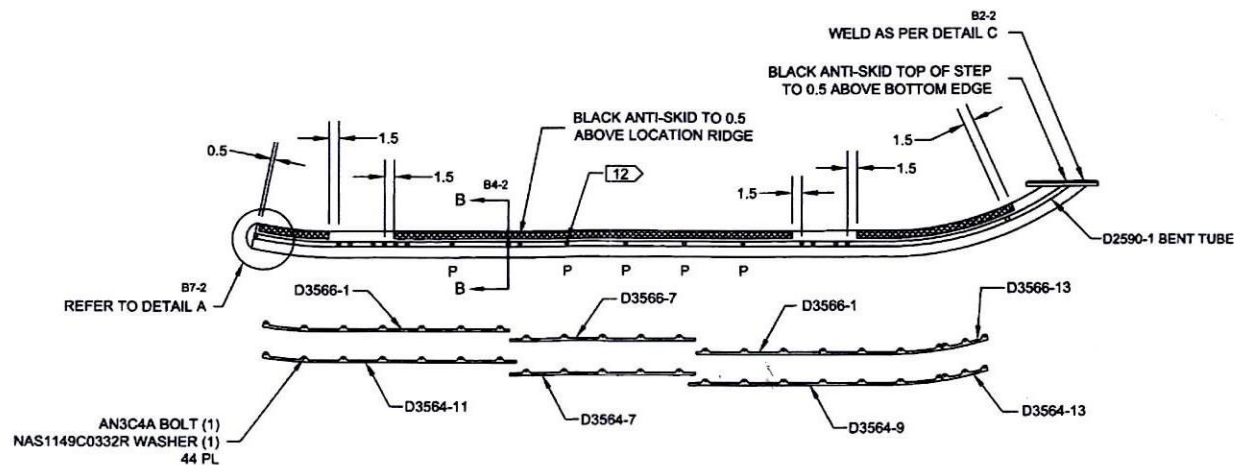
- MATERIAL: N/A
- FINISH: CHEMICAL CONVERSION PER DART QSI 005 4.1 PRIOR TO INSERTING D2597 WEB
POWDER COAT ASSEMBLY GLOSS WHITE 4.3.5.1 PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4.
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: NONE
- WEIGHT: D2590-041 = 31.5 lbs
D2590-043 = 33.3 lbs
- WELDING PER DART QSI 004.
- INSERT D2597 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- USE DART DRILL TEMPLATE DT8218 ONLY FOR D2590-041 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION B-B (44 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND NAS1149C0332R WASHERS WITH SIKAFLEX-241/-291.
- INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (10 PLACES FOR D2590-041 AND 8 PLACES FOR D2590-043).
- IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION.

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2013-07-15

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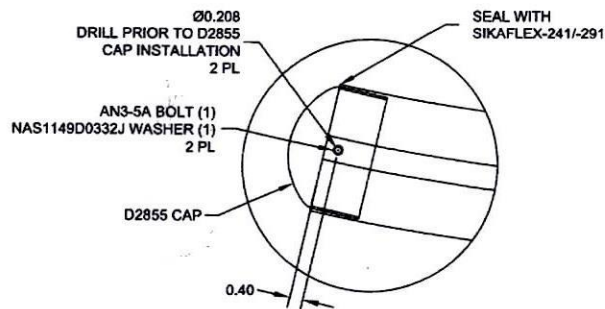
APR 27 2018

F	INCORPORATE DEO D2590-E-1 PER PAR12-218	DC	13.06.20
E	ADD D2590-043; DT8218 WAS TD2577-204 (ZN C4-1); REFORMATTED DRAWING TO CURRENT STANDARDS	RF	11.06.21
D	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124	PH	07.04.05
C	REDRAWN, INCLUDED DEO 9094/ 9097	CP	98.08.28
B	AS MANUFACTURED	DS	96.12.02
A	NEW ISSUE	DS	96.09.16
REV.	DESCRIPTION	BY	DATE
DESIGN	#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DC		
CHECKED	RF	DRAWING NO.	REV. F
MFG. APPR.	DD	D2590	SHEET 1 OF 6
APPROVED	HS	TITLE	SCALE
DE APPR.	#	204 SKIDTUBE ASSEMBLY	NTS
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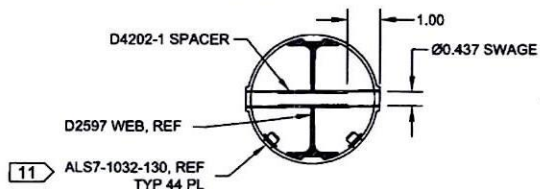


D2590-041 ASSEMBLY DETAIL

DETAIL A C6-2
SCALE 5X

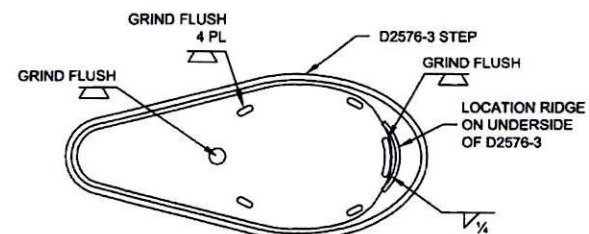


SECTION B-B D5-2
SCALE 5X



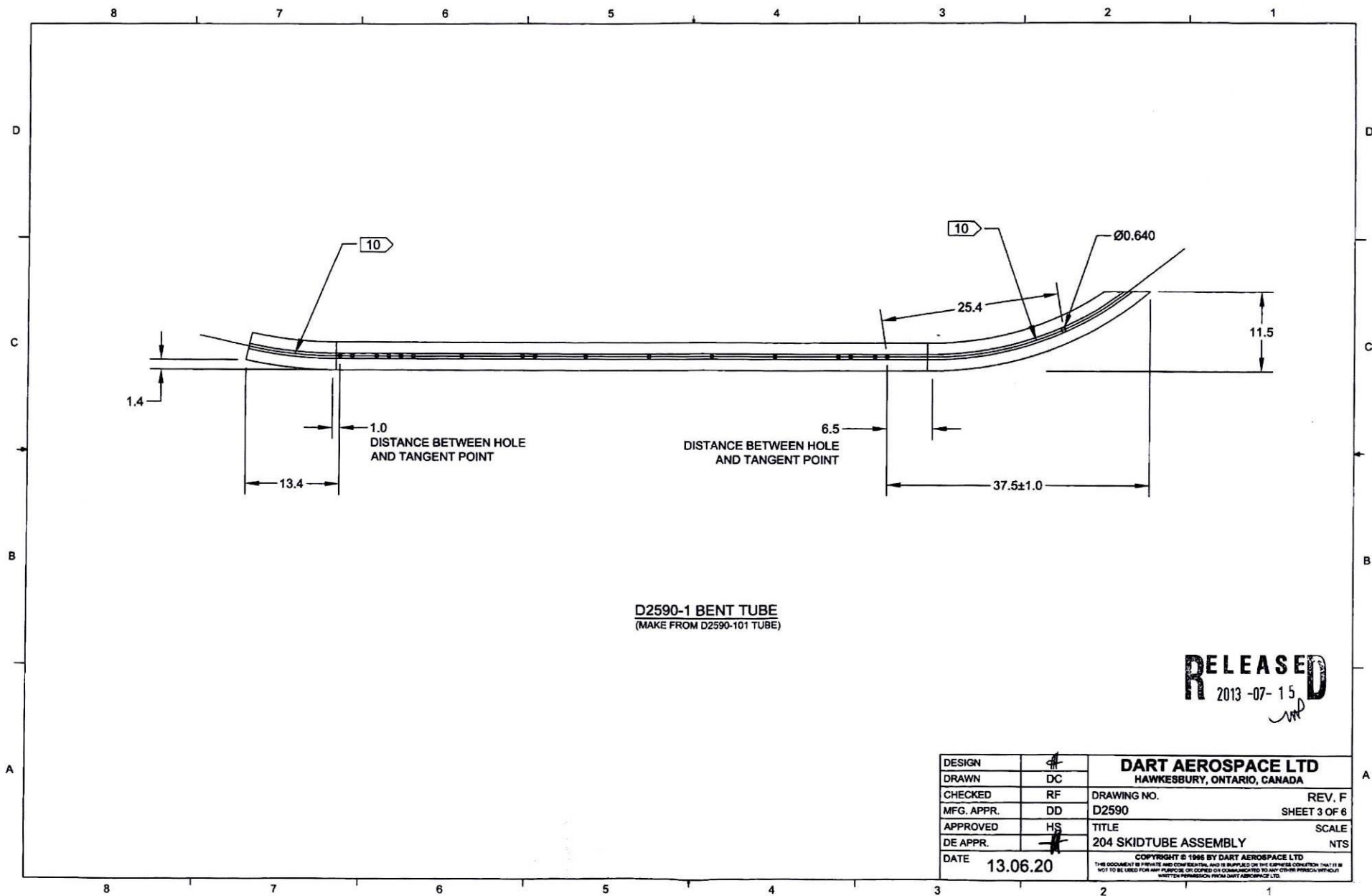
AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. INSERT D4202-1 SPACER (17 PLACES)
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM/GRIND FLUSH PER QSI 002

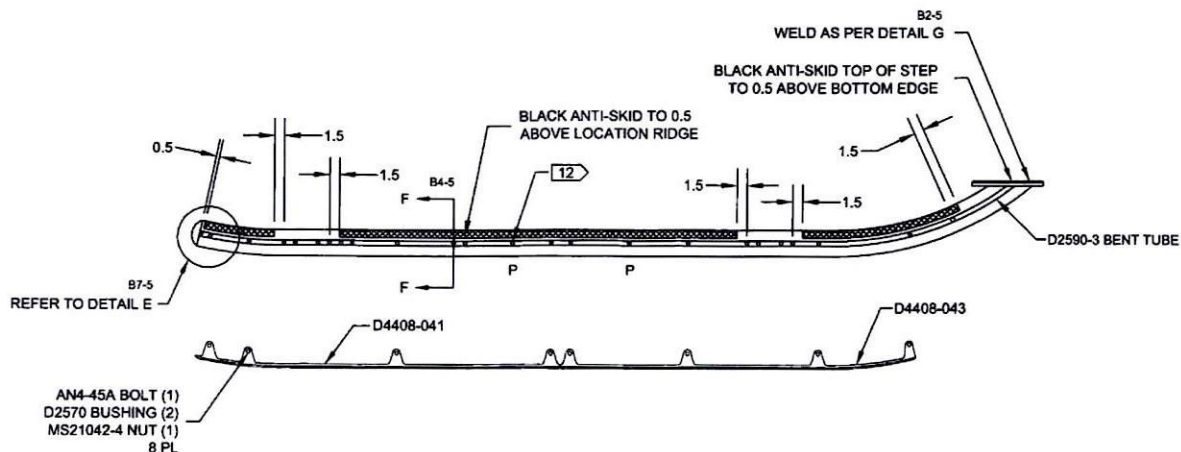
DETAIL C D3-2
SCALE 5X



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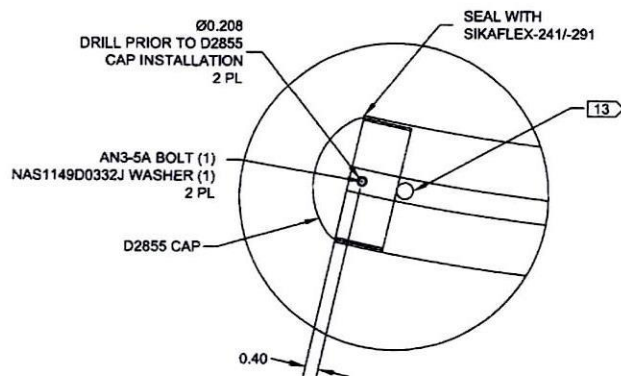
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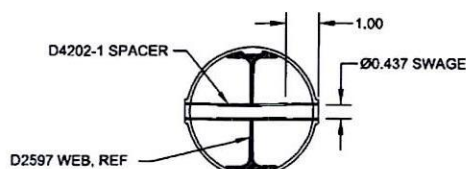


D2590-043 ASSEMBLY DETAIL

DETAIL E C6-5
SCALE 5X

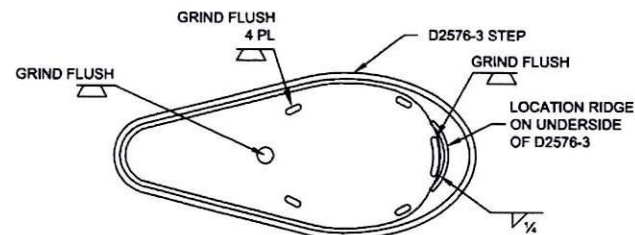


SECTION F-F D5-5
SCALE 5X



AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. INSERT D4202-1 SPACER (22 PLACES)
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM/GRIND FLUSH PER QSI 002

DETAIL G D3-5
SCALE 5X



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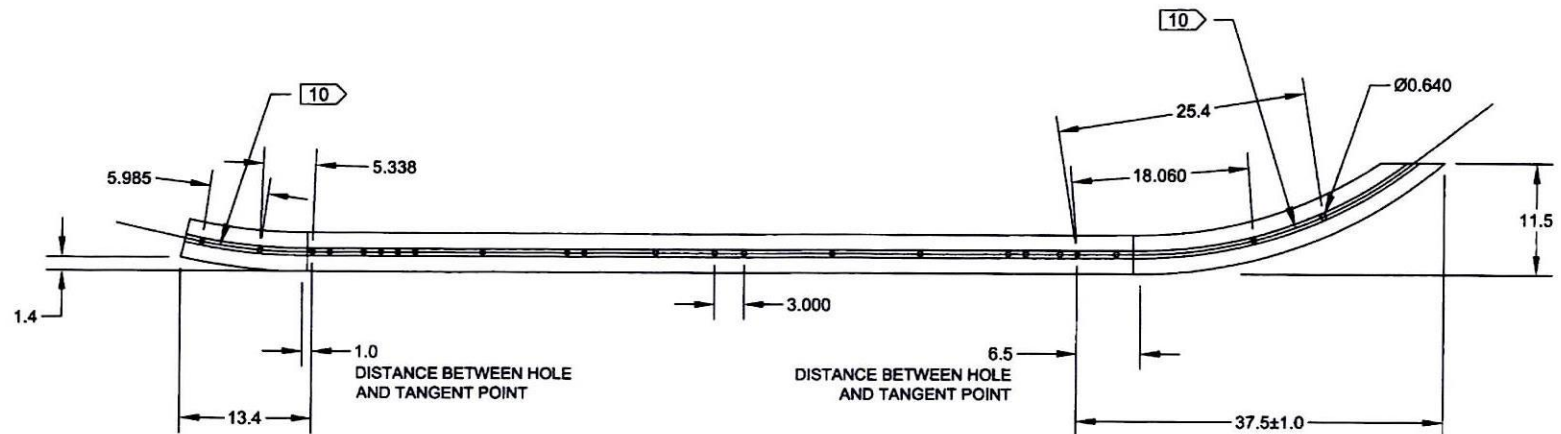
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D

C

B

A

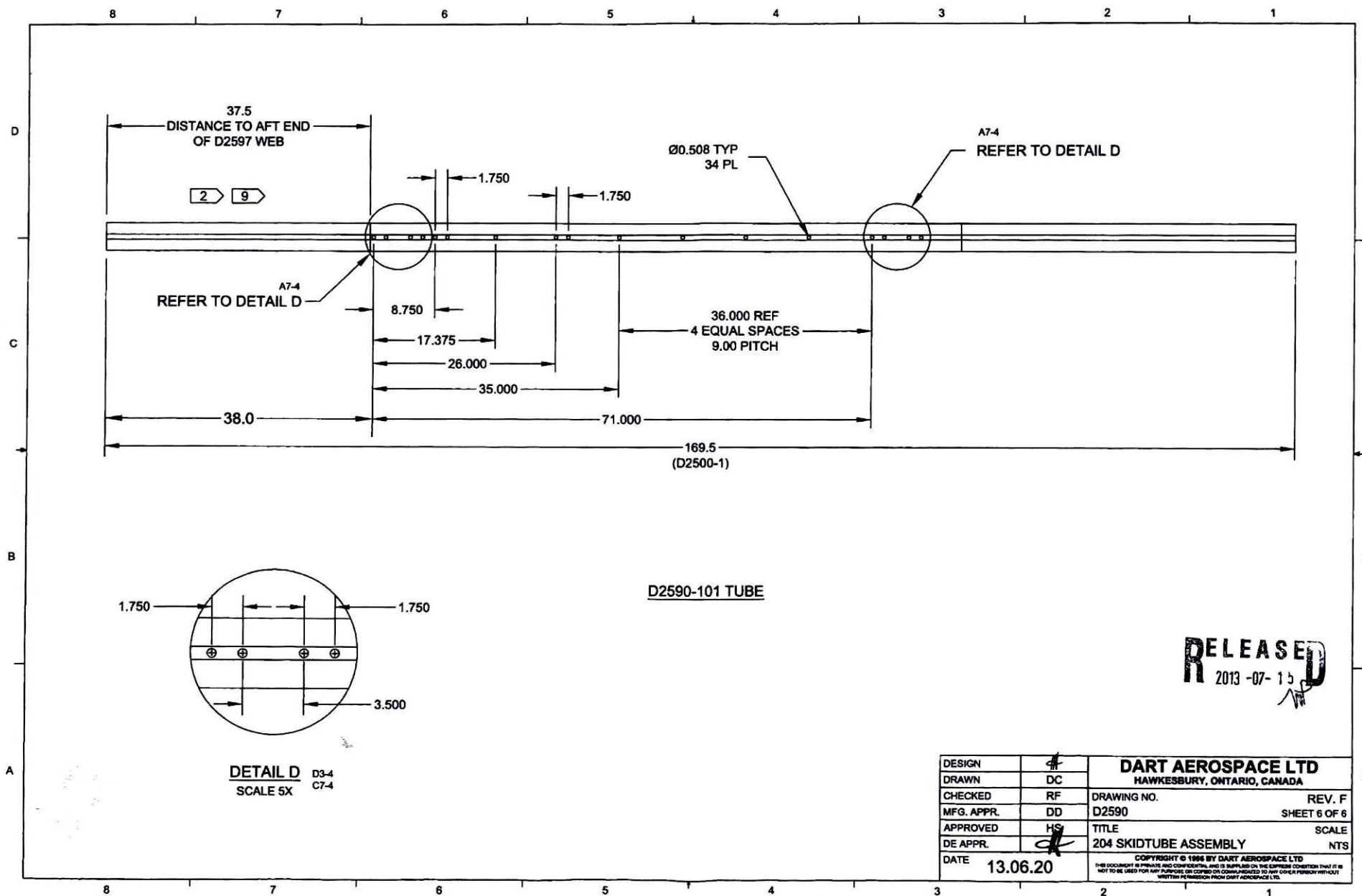


D2590-3 BENT TUBE
(MAKE FROM D2590-101 TUBE)

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8 7 6 5 4 3 2 1



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